LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-25 (Canceled)

26. (Currently Amended) A sterilization container for holding items to be passed through a sterilization process that includes a conditioning phase, a high temperature sterilization exposure phase, a vacuum drying phase and a ventilation phase, the container capable of remaining hermetically sealed and maintaining a vacuum established during the sterilization process; the container having a valve arrangement permitting a medium exchange between an inside and an outside of the sterilization container during the sterilization process, the valve arrangement comprising:

an open position of the valve arrangement to permit the exchange of the medium and a closed position of the valve arrangement to prevent the exchange of the medium;

a valve body responsive to a pressure flow to urge the valve arrangement to the closed position;

a stop in the valve arrangement, the stop having a stop position to prevent the valve arrangement from moving to the closed position; and

a temperature sensor coupled to the stop and operable to urge the stop away from the stop position based on a set temperature reached just before or during the ventilation phase.

27. (Previously Presented) The sterilization container according to claim 26, wherein the temperature sensor exhibits hysteresis based on temperature.

28. (Currently Amended) A sterilization container for holding sterilized items to be passed through a sterilization process in a sterilizer that includes a conditioning phase, a high temperature sterilization exposure phase, a vacuum drying phase and a ventilation phase, the container capable of remaining hermetically sealed and maintaining a vacuum established during

the sterilization process; the container having a valve arrangement permitting an exchange of a medium between the sterilizer and the sterilization container during the sterilization process, the valve arrangement comprising:

an open position of the valve arrangement to permit the exchange of the medium and a closed position of the valve arrangement to prevent the exchange of the medium; and

a temperature sensor in the valve arrangement operable to prevent the valve arrangement from moving to the closed position until a set temperature cycle of the sterilizer is complete, wherein the temperature sensor is protected from premature cooling.

29. (Previously Presented) The sterilization container according to claim 28, wherein the temperature sensor exhibits hysteresis based on temperature.

30. (Previously Presented) The sterilization container according to claim 26, wherein the temperature sensor further comprises:

a snap-disk stack having a plurality of snap disks each having a shape that varies responsive to temperature changes; and

at least two of the snap-disks in the snap-disk stack having different respective temperature behaviors.

31. (Previously Presented) The sterilization container according to claim 26, further comprising:

a recess at a bottom portion of the sterilization container; and

the valve arrangement being located in the recess and operable to permit condensate formed during the sterilization process to drain from the bottom portion through the valve arrangement.

32. (Previously Presented) The sterilization container according to claim 31, further comprising:

a central wall section in the bottom portion and having a conical shape that is tapered inward in an upward direction;

perforation openings in the central wall section to permit condensate to drain through the perforation openings when the valve arrangement is in the open position;

an annular valve seat surrounding the perforation openings; and

the valve body having a valve plate and a valve ring on the valve plate, the valve ring cooperating with the annular valve seat to seal the sterilization container.

33. (Previously Presented) The sterilization container according to claim 32, wherein the temperature sensor further comprises:

a snap-disk stack having a plurality of snap disks each having a shape that varies responsive to temperature changes; and

at least two of the snap-disks in the snap-disk stack having different respective temperature behaviors;

a housing in a center section of the valve plate and accommodating the snap-disk stack; and the valve arrangement further comprises:

a valve ball coupled to the snap-disk stack and movable in response to changes in the shape of the snap disks in the snap-disk stack; and

a valve-seat ring in the housing and cooperative with the valve ball to form a seal with the valve ball when the valve ball is moved in response to changes in the shape of the snap disks in the snap-disk stack.

34. (Previously Presented) The sterilization container according to claim 33, further comprising:

a bellows having an upper and a lower end and arranged around the housing in the valve arrangement;

a valve cap in the valve arrangement releasably fastened to the bottom portion of the sterilization container; and

the lower end of the bellows being connected to the valve plate and the upper end of the bellows being secured to the valve cap.

35. (Previously Presented) The sterilization container according to claim 34, further comprising:

an opening in the bottom portion of the sterilization container; and

a protrusion on the valve cap being shaped to fit in the opening and be releasably fixed in place.

36. (Previously Presented) The sterilization container according to claim 33, further comprising:

a housing lid on an upper portion of the housing in the valve arrangement; and

a blocking spring on the housing lid and having a blocking pin, the blocking spring urging the blocking pin into a position to cooperate with the stop.

37. (Previously Presented) The sterilization container according to claim 36, wherein the blocking spring is positioned to permit the valve ball to act against the urging of the blocking spring to shift the blocking pin to a release position to prevent cooperation between the blocking pin and the stop when the valve ball is moved in response to changes in the shape of the snap disks in the snap-disk stack.

38. (Previously Presented) The sterilization container according to claim 33, further comprising:

a ventilation outlet in a bottom portion of the housing for ventilating the housing;

a ventilation opening in the valve plate communicating with the ventilation outlet; and

an outlet sealing disk cooperating with the ventilation outlet to form a check valve in the housing.

39. (Previously Presented) The sterilization container according to claim 34, further comprising:

a vent opening in the valve plate communicating with a region enclosed by the bellows;

a vent sealing disk cooperating with the vent opening to form a check valve in the region enclosed by the bellows; and

a leaf spring on the valve plate arranged to provide preloading to urge the vent sealing disk to a seal position to close the vent opening.

40. (Previously Presented) The sterilization container according to claim 38, further comprising:

two coaxial cup-shaped parts, one cup-shaped part being screwed within the other cup-shaped part to form the housing in the valve arrangement; and

an annular end of the one cup-shaped part contacts the outlet sealing disk.

41. (Previously Presented) The sterilization container according to claim 36, further comprising an extension of the blocking pin cooperating with the valve ball to shift the blocking pin to a release position against the urging of the blocking spring when the valve ball is moved.

42. (Previously Presented) The sterilization container according to claim 33, further comprising:

a ventilation outlet in a bottom portion of the housing for ventilating the housing;

a ventilation opening in the valve plate communicating with the ventilation outlet; and

another valve ball coupled to the snap-disk stack and positioned to block the ventilation outlet in response to changes in the shape of the snap disks in the snap-disk stack.

43. (Previously Presented) The sterilization container according to claim 32, further comprising a baffle plate having a conical shape tapered inward and upward on the valve plate below and beneath the perforation openings for deflecting condensate drained through the perforation openings.

44. (Previously Presented) The sterilization container according to claim 30, wherein the snap disks having different respective temperature behaviors are paired together and the paired snap disks have a same curvature configuration at room temperature.

45. (Previously Presented) The sterilization container according to claim 44, further comprising two snap-disk pairs in the snap-disk stack, one pair being curved concavely upward in the snap-disk stack and another pair being curved convexly upward in the snap-disk stack.

46. (Previously Presented) The sterilization container according to claim 45, further comprising a steel disk curved convexly upward with temperature and pressure resistant curvature on a top of the snap-disk stack and having the valve ball arranged on a center part of the steel disk.

47. (Previously Presented) The sterilization container according to claim 45, further comprising:

a first steel disk curved convexly upward with temperature and pressure resistant curvature supporting the snap-disk stack; and

a second steel disk curved concavely upward with temperature and pressure resistant curvature and disposed between the two snap-disk pairs.

48. (Previously Presented) The sterilization container according to claim 30, wherein one of the snap-disks in the snap-disk stack has a temperature behavior of changing shape at about 115°C during heating and changing shape under hysteresis at about 95°C during cooling.

49. (Previously Presented) The sterilization container according to claim 30, wherein one of the snap disks in the snap-disk stack has a temperature behavior of changing shape at greater than about 115°C during heating and does not change shape again until cooled to about 50°C under hysteresis.

50. (Previously Presented) The sterilization container according to claim 49, wherein the one snap disk changes shape at about 117°C during heating.

51. (Previously Presented) The sterilization container according to claim 49, wherein the one snap disk does not change shape again until cooled in the range of from about 30°C to about 50°C under hysteresis.

52. (Previously Presented) The sterilization container according to claim 42, further comprising:

a steel disk curved convexly upward with temperature and pressure resistant curvature supporting the snap-disk stack; and

the another valve ball arranged on the steel disk.

53. (Previously Presented) The sterilization container according to claim 34, further comprising:

a lower annular flange on the bellows extending outward from the bellows; and

a distance piece between the lower annular flange and the valve plate to connect the bellows to the valve plate.

54. (Previously Presented) The sterilization container according to claim 42, further comprising:

a rim of the sterilization container having a trough with a vertical surface and a horizontal surface;

a container lid shaped to cooperate with the rim to enclose a top of the sterilization container;

a circumferential groove in the container lid;

a sealing ring arranged on a circumferential edge of the container lid and having a leg arranged on a radially inward portion of the sealing ring;

the leg being shaped to be received in the groove of the container lid; and

the sealing ring provides a seal between the container lid and the vertical and horizontal surfaces of the trough.

55. (Currently Amended) A valve arrangement for a sterilization container for holding items to be passed through a sterilization process in a sterilizer that includes a conditioning phase, a high temperature sterilization exposure phase, a vacuum drying phase and a ventilation phase, the valve arrangement capable of maintaining an internal vacuum in the sterilization container established during the sterilization process, the valve arrangement permitting an exchange of a medium with the sterilizer and the sterilization container during the sterilization process,

the valve arrangement having an open position of the valve arrangement to permit the exchange of medium and a closed position of the valve arrangement to prevent the exchange of medium; and

a temperature sensor in the valve arrangement operable to prevent the valve arrangement from moving to the closed position until the temperature sensor reaches a set temperature and wherein the temperature sensor is isolated from a cooling effect of the sterilization process.

56. (Previously Presented) A method for operating a valve in a sterilization container for holding items to be passed through a sterilization process in a sterilizer, comprising:

setting a blocking pin in a position to cooperate with a stop to prevent closure of the valve;

exposing the sterilization container and the valve to a sterilization phase while maintaining the blocking pin position;

increasing a temperature applied to the sterilization container and valve to heat the valve beyond a set temperature;

moving the blocking pin to a position to prevent cooperation with the stop in response to obtaining a temperature for the valve above the set temperature;

closing the valve in response to a pressure differential, whereby the sterilization container maintains a vacuum.

57. (Previously Presented) The method according to claim 56, further comprising:

venting condensate from the valve while the valve is prevented from closing.